Practice Workbook: Linux Filter Commands

To go through the following practice workbook, you will need to use the Terminal on Linux or macOS. If you're on windows, consider installing Git BASH [Link].

This workbook will help you learn about standard filter commands that take an input file as a parameter and perform a certain operation.

Prerequisites

Using Linux commands in the terminal, create a directory `Emails` within the Documents directory. Go into the folder and then download the file located at: *https://archive.org/download/email_20210830/email.txt* using the `curl` command as shown.

```
curl https://archive.org/download/email_20210830/email.txt -O
```

Once you've successfully downloaded the file into the `Emails` directory, go through the following examples and work on the challenges. By the end of the workbook, you should use common Linux filter commands to explore and search for content in files.

Linux Commands

`cat` **command:** This command reads the contents of a file.

Example

```
cat hello.txt
```

Challenge

- Read the contents of `email.txt` .

`head` **command:** This command is used to output the first 10 lines by default. We can use `n` to specify the number of lines to be displayed.

Examples

```
head hello.txthead -n 5 hello.txt
```

Challenges

- Preview the first 10 lines of `email.txt` .
- Preview the first 5 lines of `email.txt` .

`tail` **command:** This command is used to output the last 10 lines by default. `-n` specifies the number of lines to be displayed.

Examples

```
tail hello.txttail -n 5 hello.txt
```

Challenges

- Output the last 10 lines of `email.txt` .
- Output the last 20 lines of `email.txt` .

`sort` **command:** This command is used to sort lines of a text file in ascending order.

Examples

First preview the file by running:

```
cat hello.txt
```

Then sort the file:

```
sort hello.txt
```

Challenge

- Sort `email.txt` in ascending order.

`uniq` **Command:** The `uniq` command is used to remove duplicated lines. `-c` indicates the number of occurrences of a line.

Examples

Preview the contents of the file.

```
cat hello.txt
```

Sort and indicate any number of occurrences.

```
sort hello.txt | uniq -c
```

Challenge

- Show the unique emails in `email.txt`.

`grep` **command:** `grep` command stands for "global regular expression print" and filters the content of a file.

Examples

Filter all the data containing `e` .

```
grep 20 hello.txt
```

Filter all the data not containing `e` using 'grep -v'.

```
grep -v 20 hello.txt
```

Challenges

- Filter all the emails in `email.txt` containing `yahoo.com` .
- Filter all the emails in `email.txt` not containing `.com` .

`wc` command

The `wc` command gives the number of lines, words, and characters in the data.

Example

```
wc hello.txt
```

Challenge

- Sort `email.txt` and find the number of characters in `email.txt` .